

the description taken with the drawings making apparent to those skilled in

the art how the several forms of the invention may be embodied in

practice.

*The patent or application contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.*

5           FIGs. 1a-f show simplified cross sections of several prior art  
deformable mirrors: (a) piston activation of flat mirrors; (b) piston  
activation of a continuous mirror; (c) a piezoelectric monolithic mirror; (d)  
electrostatic membrane mirror; (e) bending moments using pistons  
operable with either segmented mirrors or continuous mirrors; and (f) a  
10   bimorph mirror.

FIG. 2 is a schematic depiction of an optical measurement system  
based on a curvature wave front sensor. A point source is collimated and  
reflected off a sample. A moving lens images two planes – the sample and  
one close to it – alternately on the camera. The off-sample plane exhibits  
15   intensity changes as a function on voltage on the sample. All these images  
are grabbed into the computer and processed to yield the voltage response  
of the surface of the mirror.

FIG. 3 shows dependence of the silicon-porous silicon bimorph  
mirror on voltage. One sees the reconstructed wave front reflected off the

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8-30-04*

00643769-04400